And in his "Astronomy," 1814, vol. ii. p. 52,

In the coefficient of sin $2g$,

instead of $+\frac{677}{2^2 \cdot 3^3 \cdot 5} e^{10}$ read $+\frac{677}{2^9 \cdot 3^3 \cdot 5} e^{10}$.

Also in Delambre's expression for $\frac{r}{a}$ the following errata occur:—

In the Introduction to his Solar Tables, 1806,

In the coefficient of $-\cos g$,

instead of $-\frac{3}{2^2} e^3$ read $-\frac{3}{2^3} e^3$.

In the coefficient of $-\cos 5g$,

instead of $+\frac{5^6}{2^{13} \cdot 9} e^9$ read $+\frac{5^6}{2^{13} \cdot 7} e^9$.

And in his "Astronomy," 1814, vol. ii. p. 51,

In the coefficient of $-\cos 5g$,

instead of $\frac{53}{2^7 \cdot 3} e^5$ read $\frac{5^3}{2^7 \cdot 3} e^5$.

Also in Delambre's formula for the hyperbolic logarithm of the radius vector, the following errata occur:—

In the Introduction to his Solar Tables, 1806,

In the coefficient of $-\cos 2g$,

instead of $-\frac{9}{240} e^8$ read $-\frac{9}{640} e^8$.

In the coefficient of $-\cos 8g$,

instead of $\frac{47529}{2^{10} \cdot 5 \cdot 7} e^8$ read $\frac{47259}{2^{10} \cdot 5 \cdot 7} e^8$.

And in his "Astronomy," 1814, vol. ii. p. 50,

In the coefficient of $-\cos 7g$,

instead of $\frac{355081}{2^{10} \cdot 3^2 \cdot 5^7} e^7$ read $\frac{355081}{2^{10} \cdot 3^2 \cdot 5 \cdot 7} e^7$.

On the Orbit of γ Coronæ Australis. By A. M. W. Downing, M.A.

Elements of the orbit of this binary star have been published by Professor Schiaparelli in *Astronomische Nachrichten*, No. 2073, and a comparison of observed and computed places given up to the date 1875·65, from which it appears that these elements represent the series of observations made up to that date extremely well. As several more recent observations of *γ Coronæ Australis* have now been published, I have determined the corrections applicable to Schiaparelli's elements in order that the places computed from them may be brought into rather better accord with the whole series of observations extending from 1834·47 to 1880·67.

The method of computation which I have adopted is that proposed by Professor Klinkerfues (*Theoretische Astronomie*, Vorlesung 110) with Dr. Doberck's modifications, by which corrections to all the assumed elements, except the semi-axis major, are found from six normal position-angles. From a consideration of the outstanding errors of the position-angles computed from Schiaparelli's elements, the following normal places have been found:—

Epoch.	Normal Angle.	θ_c
1835·97	35°·36	35°·46
1851·88	3·52	3·53
1856·34	350·62	350·55
1861·88	327·72	327·56
1876·92	250·39	250·26
1879·56	238·31	238·42

If, now, the mean anomaly at any time t be represented by

$$m + (\mu + \delta\mu)t,$$

where μ is the assumed mean annual motion, by proceeding according to the above-mentioned method the following values are found:—

$$m = +2°·805, \quad \text{and } \delta\mu = +0°·0705;$$

and the corresponding correction to the assumed value of the eccentricity is $-0·0015$. Whence we derive

$$T = 1883·203, \quad P = 54·985 \text{ years}, \quad \text{and } e = 0·6974.$$

True anomalies for each normal epoch are found from these values, and from these with the assumed γ, λ and Ω, the corresponding position-angles are computed. And by comparing these position-angles with the normal angles we get six equations of condition for determining corrections to γ, λ and Ω of the form

$$\theta' + \frac{d\theta'}{d\Omega} \cdot \Delta\Omega + \frac{d\theta'}{d\lambda} \cdot \Delta\lambda + \frac{d\theta'}{d\gamma} \cdot \Delta\gamma = \theta;$$

where θ' is the computed and θ the normal position-angle. These equations being solved by the method of least squares give

$$\gamma = 69°\ 17', \quad \lambda = 283°\ 57', \quad \text{and } \Omega = 227°\ 23'.$$

The position-angles for the normal epochs found from these elements are given above in the column θ_c. Lastly, the semi-axis major is found from all the observations of distance (combined with the new elements) with the exception of the observation made at the date 1879·70.

The new elements are:—

$T = 1883{\cdot}203$
$P = 54{\cdot}985$ years
$e = 0{\cdot}6974$
$\gamma = 69^\circ\ 17'$
$\lambda = 283\ 57$
$\Omega = 227\ 23$
$a = 2''{\cdot}44$

And the comparison with the individual annual results is as follows:—

Epoch.	Observer.	θ_o	$\theta_o - \theta_c$	ρ_o	$\rho_o - \rho_c$
		°	°	"	"
1834·47	Herschel	37·1	−1·79		
35·55	,,	36·8	+0·40		
36·43	,,	34·5	−0·04		
37·21	,,			2·66	+0·41
37·43	,,	32·7	+0·16		
47·32	Jacob	14·1	+0·03	2·30	+0·10
50·46	,,	5·87	−1·19	2·29	+0·25
51·54	,,	4·47	+0·05	2·26	+0·27
52·49	,,	2·21	+0·29	1·90	−0·02
53·52	,,	359·04	−0·06	1·83	−0·03
53·71	Powell	358·57	+0·02		
54·26	Jacob	356·16	−0·77	1·71	−0·11
54·78	Powell	355·58	+0·22		
55·77	,,	352·93	+0·71		
56·44	Jacob	349·44	−0·53	1·67	−0·03
57·44	,,	347·37	+0·97	1·61	−0·03
58·20	,,	343·42	−0·13	1·53	−0·07
59·72	Powell	338·1	+0·26		
61·69	,,	328·8	+0·32		
62·27	,,	325·3	−0·33		
63·84	,,	318·1	+0·38		
75·65	Schiaparelli	257·41	+0·78	1·45	−0·03
76·65	Howe	253·1	+0·94	1·67	+0·19
77·43	Schiaparelli	248·36	−0·31	1·49	+0·01
77·61	Howe	245·73	−2·11	1·37	−0·10
77·69	O. Stone	249·4	+1·92		
78·49	,,	242·4	−1·35	1·22	−0·22
78·49	Howe	242·9	−0·85	1·47	+0·03
79·70	Burnham	240·0	+2·34	0·87	−0·48
80·46	Russell	233·13	−0·06	1·15	−0·09
1880·67	Hargrave	232·37	+0·54	1·32	+0·12

The corrections to Schiaparelli's elements are quite small, and perhaps of little practical importance. My chief object in bringing the subject forward is to direct attention to the circumstance that, according to these elements the periastron passage occurred in the early part of the present year, in the hope that observers in the southern hemisphere may be induced to make observations of this interesting binary before the present critical state of things has passed away.

Observations of the Companion of Sirius, made at the Dearborn Observatory, Chicago. By Professor G. W. Hough, Director.

(*Communicated by the Secretaries.*)

Date.	Sid. Time.	P.	S.	Date.	Sid. Time.	P.	S.
	h	°	″		h	°	
1880·151		48·7	9·77	1882·145	7·3	42·7	9·32
·173		52·3	9·79	·148	7·0	42·7	9·35
·181		47·8	10·05	·164	7·2	43·0	9·22
				·195	7·3	42·8	9·26
1881·206		45·2	9·47	1882·991	5·2	41·9	8·98
·260		45·7	9·62	1883·066	6·1	39·3	8·81
·269		47·3		·074	6·7	40·8	9·23
·280		44·9		·115	5·5	39·3	9·11
·288		43·3	9·71	·131	6·0	39·5	9·03
				·134	6·1	39·8	8·83
1882·085	6·0	43·8	9·35	·137	5·6	39·2	9·17
·088	6·0	43·8	9·25	·142	7·5	39·5	clouded
·102	6·0	43·1	9·27	·159	6·3	39·7	9·02
·104	7·0	43·4	9·32	·175	6·9	39·6	8·99
·109	6·5	42·9	9·32	·195	7·9	38·0	9·03
			Results.				
1880·168		49·6	9·87	1882·127		43·1	9·30
1881·260		45·3	9·60	1883·120		39·7	9·02

On Hell's alleged Falsification of his Observations of the Transit of Venus in 1769. By Simon Newcomb.

The story of Hell's supposed tampering with his observations of the Transit of *Venus*, made at Wardhus in 1769, is so familiar to all interested in the subject that only a brief mention of its points is necessary. It is, in substance, that he delayed publishing his observations so long as to give rise to the suspicion of intending to alter them; that he showed them to no one until